Abstracts

Frequency Stability of L-Band, Two-Port Dielectric Resonator Oscillators (1987 Vol. II [MWSYM])

M.J. Loboda, T.E. Parker and G.K. Montress. "Frequency Stability of L-Band, Two-Port Dielectric Resonator Oscillators (1987 Vol. II [MWSYM])." 1987 MTT-S International Microwave Symposium Digest 87.2 (1987 Vol. II [MWSYM]): 859-862.

Dielectric resonator oscillators operating at 1.5 and 2.0 GHz, based on a two-port resonator design incorporated into a basic feedback oscillator configuration were evaluated and show state-of-the-art, close-to-carrier phase noise performance. Typically, at 1 KHz carrier offset frequency the single sideband phase noise levels were -130 dBc/Hz and -120 dBc/Hz for the 1.5 GHz and 2.0 GHz oscillators, respectively. Vibration sensitivity was also investigated and the resonators show fractional frequency changes per g in the range of 10/sup -7/ to 10/sup -9/ for the 1.5 GHz and 2.0 GHz designs, respectively.

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